

## North American PHEV Demonstration

Fleet Summary Report: Hymotion Prius (V2Green data logger)

Number of vehicles: 153

Reporting Period: March 2011

## Vehicle Technologies Program

Date range of data received:

3/1/2011 to 3/31/2011

Number of days the vehicles were driven: 31

### All Trips Combined

Overall gasoline fuel economy (mpg)	45
Overall AC electrical energy consumption (AC Wh/mi) <sup>1</sup>	40
Overall DC electrical energy consumption (DC Wh/mi) <sup>2</sup>	28
Total number of trips	12,254
Total distance traveled (mi)	114,393

### Trips in Charge Depleting (CD) mode <sup>3</sup>

Gasoline fuel economy (mpg)	58
DC electrical energy consumption (DC Wh/mi) <sup>4</sup>	141
Number of trips	3,814
Percent of trips city / highway	88% / 12%
Distance traveled (mi)	17,204
Percent of total distance traveled	15%

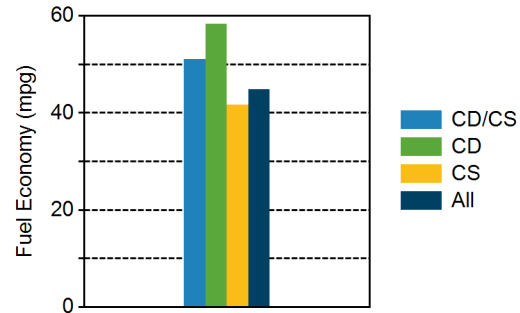
### Trips in both Charge Depleting and Charge Sustaining (CD/CS) modes <sup>5</sup>

Gasoline fuel economy (mpg)	51
DC electrical energy consumption (DC Wh/mi) <sup>6</sup>	49
Number of trips	645
Percent of trips city / highway	48% / 52%
Distance traveled (mi)	16,780
Percent of total distance traveled	15%

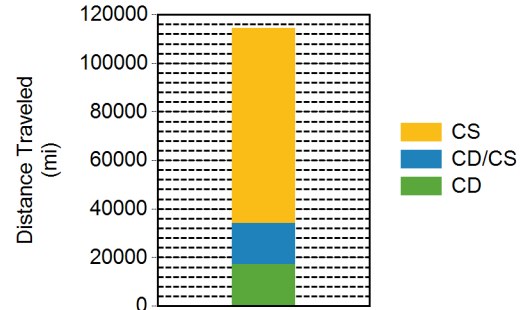
### Trips in Charge Sustaining (CS) mode <sup>7</sup>

Gasoline fuel economy (mpg)	42
Number of trips	7,795
Percent of trips city / highway	80% / 20%
Distance traveled (mi)	80,409
Percent of total distance traveled	70%
Number of trips when the plug-in battery pack was turned off by the vehicle operator <sup>8</sup>	770
Distance traveled with plug-in battery pack turned off by the vehicle operator (mi) <sup>9</sup>	14,673

### Gasoline Fuel Economy By Trip Type



### Distance Traveled By Trip Type



Notes: 1 - 9. Please see <http://avt.inl.gov/pdf/phev/ReportNotes.pdf> for an explanation of all PHEV Fleet Testing Report notes.

### Trips in Charge Depleting (CD) mode

	City	Highway
Gasoline fuel economy (mpg)	55	64
DC electrical energy consumption (DC Wh/mi)	161	109
Percent of miles with internal combustion engine off	30%	17%
Average trip aggressiveness (on scale 0 - 10)	1.9	1.9
Average trip distance (mi)	3.1	14.7

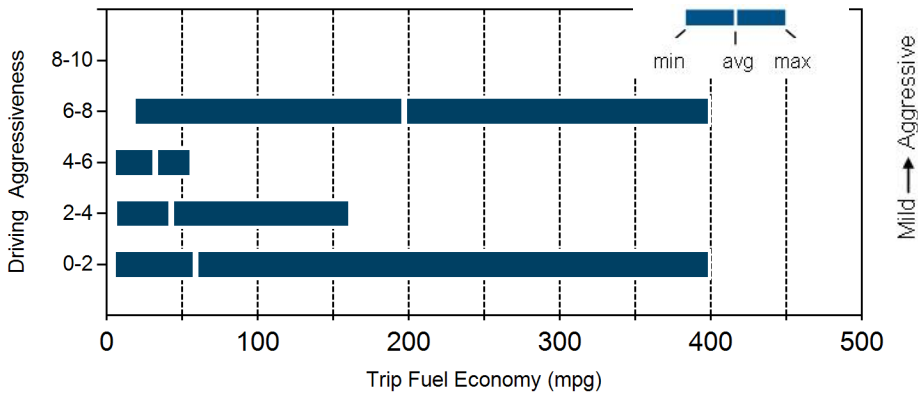
### Trips in both Charge Depleting and Charge Sustaining (CD/CS) modes

Gasoline fuel economy (mpg)	49	52
DC electrical energy consumption (DC Wh/mi)	72	45
Percent of miles with internal combustion engine off	24%	10%
Average trip aggressiveness (on scale 0 - 10)	2.0	1.6
Average trip distance (mi)	7.8	42.6

### Trips in Charge Sustaining (CS) mode

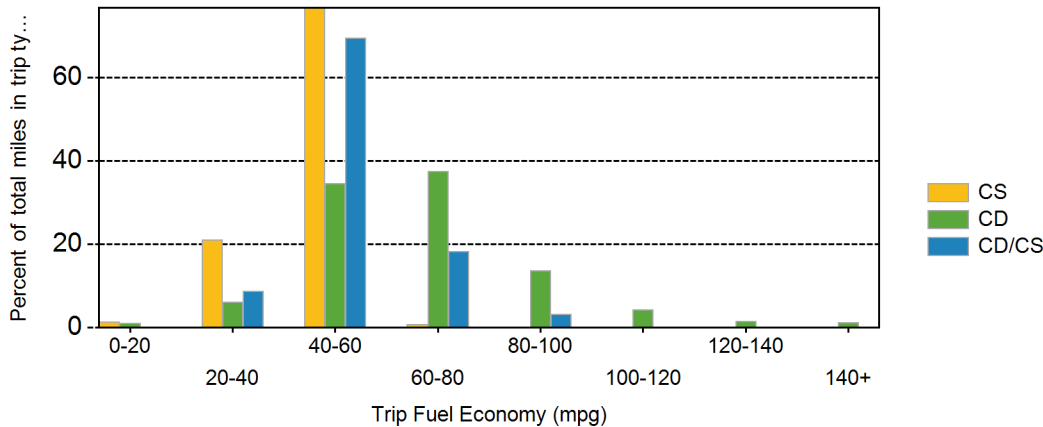
Gasoline fuel economy (mpg)	34	45
Percent of miles with internal combustion engine off	21%	8%
Average trip aggressiveness (on scale 0 - 10)	2.2	1.8
Average trip distance (mi)	3.3	39.1

### Effect Of Driving Aggressiveness on Fuel Economy This Year



Aggressiveness factor is based on accelerator pedal position. The more time spent during a trip at higher accelerator pedal position, the higher the trip aggressiveness.

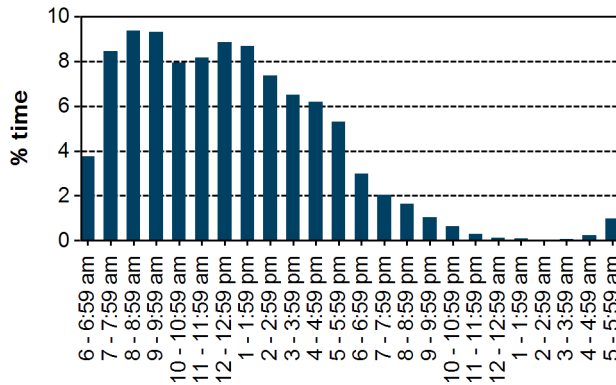
### Trip Fuel Economy Distribution By Trip Type



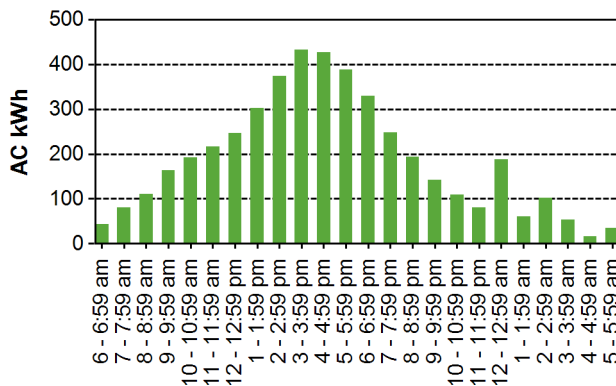
## Plug-in charging

Average number of charging events per vehicle per month when driven	11
Average number of charging events per vehicle per day when vehicle driven	0.7
Average distance driven between charging events (mi)	70.8
Average number of trips between charging events	7.6
Average time plugged in per charging event (hr)	26.7
Average time charging per charging event (hr)	2.9
Average energy per charging event (AC kWh)	2.8
Average charging energy per vehicle per month (AC kWh)	29.7
Total number of charging events	1,616
Total charging energy (AC kWh)	4,545

**Time of Day When Driving**



**Time of Day When Charging**



**Time of Day When Plugging In**

